Specific conditions used to produce vanadium oxide particles in a particular apparatus are described below in the Examples. Additional information on the production of vanadium oxide nanoparticles by laser pyrolysis is provided in copending and commonly assigned U.S. Patent application serial number 08/897,778 to Bi et al. now U.S. Patent 6,106,798, entitled "Vanadium Oxide Nanoparticles," incorporated herein by reference. Furthermore, some general observations on the relationship between reaction conditions and the resulting particles can be made.

a2

At page 20, line 18 to page 21, line 2, please replace the paragraph with the following:

An alternative design of a laser pyrolysis apparatus has been described in copending and commonly assigned U.S. Patent Application No. 08/808,850 now U.S. Patent 5,958,348, entitled "Efficient Production of Particles by Chemical Reaction," incorporated herein by reference. This alternative design is intended to facilitate production of commercial quantities of particles by laser pyrolysis. The reaction chamber is elongated along the laser beam in a dimension perpendicular to the reactant stream to provide for an increase in the throughput of reactants and products. The original design of the apparatus was based on the introduction of purely gaseous reactants. Alternative embodiments for the introduction of an aerosol into an elongated reaction chamber is described in copending and commonly assigned U.S. Patent application serial No. 09/188,670 to Gardner et al., filed on November 9, 1998, entitled "Reactant Delivery Apparatuses," incorporated herein by reference.

a3

B

At page 26, line 21, please replace the paragraph with the following:.

The conditions to convert crystalline VO_2 to orthorhombic V_2O_5 and 2-D crystalline V_2O_5, and amorphous V_2O_5 to orthorhombic V_2O_5

a4

a4 and 2-D crystalline V_2O_5 are describe in copending and commonly assigned U.S. Patent application serial number 08/897,903, to Bi et al. now U.S. Patent 5,989,514, entitled "Processing of Vanadium Oxide Particles With Heat," incorporated herein by reference.

~~At page 30, line 20,~~ please replace the paragraph with the following:

a5 Because of their small size, the primary particles tend to form loose agglomerates due to van der Waals and other electromagnetic forces between nearby particles. Nevertheless, the nanometer scale of the primary particles is clearly observable in transmission electron micrographs of the particles. The particles generally have a surface area corresponding to particles on a nanometer scale as observed in the micrographs. Furthermore, the particles can manifest unique properties due to their small size and large surface area per weight of material. For example, vanadium oxide nanoparticles generally exhibit surprisingly high energy densities in lithium batteries, as described in copending and commonly assigned U.S. Patent Application Serial No. 08/897,776 now U.S. Patent 5,952,125, entitled "Batteries With Electroactive Nanoparticles," incorporated herein by reference.

At page 35, line 16, please replace the paragraph with the following:

a6 Positive electrode 454 includes electroactive nanoparticles such as metal vanadium oxide nanoparticles held together with a binder such as a polymeric binder. Nanoparticles for use in positive electrode 454 generally can have any shape, e.g., roughly spherical nanoparticles or elongated nanoparticles. In addition to metal vanadium oxide particles, positive electrode 454 can include other electroactive nanoparticles such as TiO_2 nanoparticles, vanadium oxide nanoparticles and manganese oxide nanoparticles. The production of TiO_2 nanoparticles has been described, see U.S.